



#### **Outline**

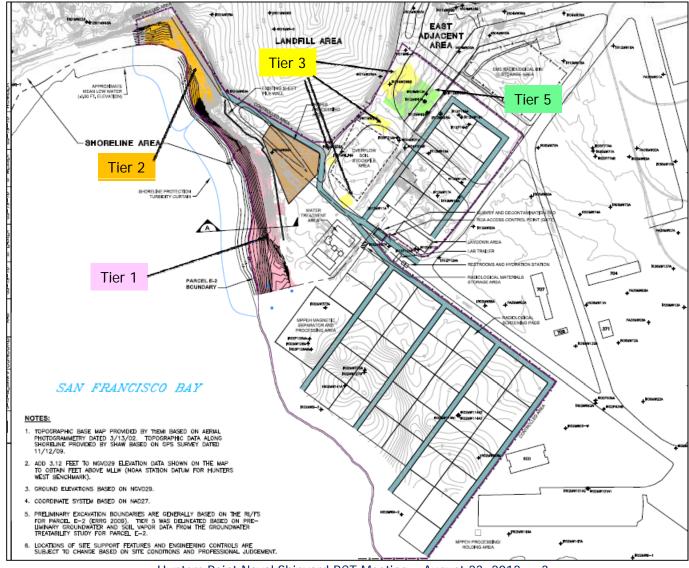


- PCB Hot Spot TCRA
  - Before and After Photos
  - TCRA Accomplishments
  - Remaining Work
  - Schedule
- Experimental Ship Shielding Range TCRA
  - Activities Accomplished to Date
  - Field Work Photos
  - What's Next
  - Schedule



#### PCB Hot Spot Site Layout Map







#### **Debris Removal Tier 1**







Before and After Debris Removal in Tier 1, looking south (October 2010).



#### **Debris Removal Tier 1**





Backfilled cleaned up Tier 1 shoreline, looking south (August 2012).



#### **Debris Removal Tier 2**







Before and after debris removal, excavation, and placement of clean fill (sand) in Tier 2, looking north.



#### **PCB Hot Spot - Tier 2**





Armored shoreline May 2012.



#### PCB Hot Spot TCRA Accomplishments



- Removed approximately 43,000 cy of PCB, TPH, and leadcontaminated soil along the shoreline of SF Bay.
- Highest contaminants removed include 5,060 ppm PCB; 38,000 ppm TPH; 108,553 ppm lead; 12,000 ppm copper; and 320 ppm PCE.
- Over 3,000 cy of concrete, asphalt, trash, and large keel blocks/debris removed.
- Fifty-six (56) radioactive commodities removed.
- Radiologically cleared >60 tires.
- Completed MPPEH screening and 3<sup>rd</sup> Party QA inspection and clearance of 36,000 cy of soil with no "live" findings.
- Demilitarized 17 material determined as safe (MDAS) items.
- Placed temporary revetment along shoreline.



#### **PBC Hot Spot – Remaining Work**



- Backfilling at Tier 3
- Demobilize RSY pads
- Final gamma walkover survey of nonconstruction areas
- Site Restoration
- Complete offsite T&D





### **PCB Hot Spot Schedule**

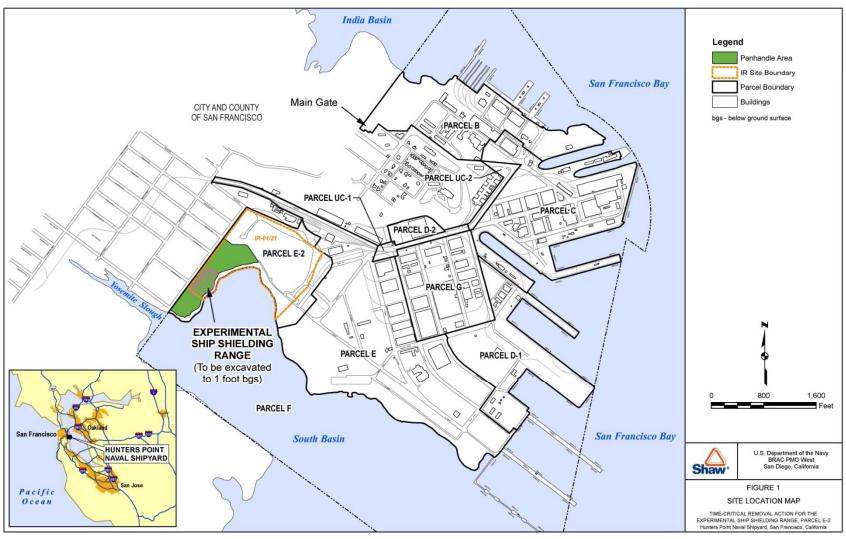


Activity	Date
Completed Hot Spots Excavation	June 2012 – Completed
Complete Soil Screening and Implementing Acceptance Sampling Procedures	June - August 2012 - Completed
Complete Backfill and Site Restoration	June – August 2012
Demobilize	September 2012
Submit Draft Removal Action Completion Report	December 2012



#### **Experimental Ship Shielding Range**







#### **Experimental Ship Shielding Range Activities Accomplished to Date**



- The goal of TCRA was to investigate and remove cobalt-60 contamination resulting from past Navy ship shielding experiments.
- Mobilized to site on May 29, 2012 completed excavation work August 7, 2012.
- Performed biological surveys (pedestrian avian clearance and nest survey) throughout the duration of field work.
- Collected pre-excavation waste characterization samples
  - 1 sample collected / 500 cy
  - 10 samples collected total
- Excavated a total of 4,630 cy from the Shielding Range; samples show approx 1,000 cy meet chemical import fill criteria and approx 3,630 cy was non-haz waste (will be disposed of upon rad clearance on RSY pads).



## **Experimental Ship Shielding Range Activities Accomplished to Date**



- Transferred excavated material to Basewide radiological contractor for rad screening on RSY pads.
  - Excavated material spread onto 23 pads (~200 cy each)
  - Approximately 1.5 cy removed as LLRW
  - Remaining ~4,628 cy is not rad impacted (last set of samples is pending)
- Completed the final conditions survey of the excavation and buffer zones on August 16. Systematic sampling data still pending.
- Laboratory results showed no cobalt detections above release criteria (0.252 pCi/g)



## **Experimental Ship Shielding Range Radiological Screening**



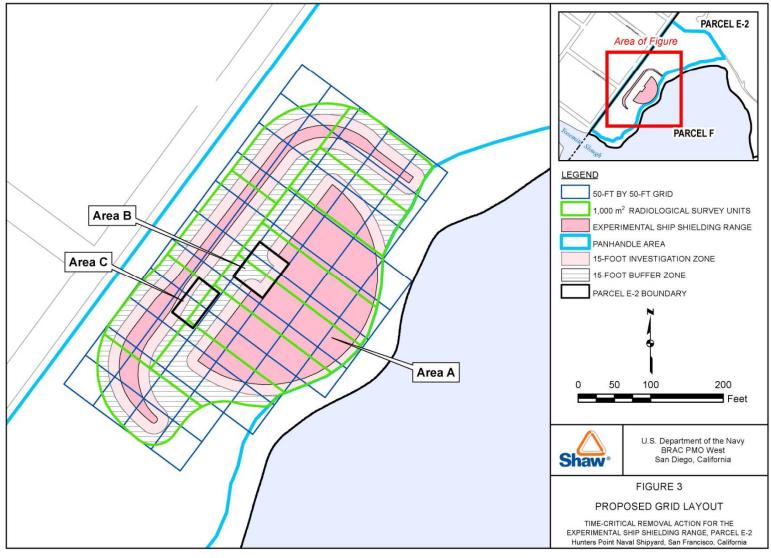
 6 commodities encountered to date

Origin	Item Inventory Number	Item Description	Dose Rate@ 1" (uR/hr)
CTO-002 Grid 16	HPS-COM- 054	Metal/Rock	1,300
CTO-002 Grid 16	HPS-COM- 055	Metal/Rock	360
CTO-002 Grid 16	HPS-COM- 056	Metal/Rock	400
CTO-002 Grid 16	HPS-COM- 057	Metal/Rock	46
CTO-002 Grid 16	HPS-COM- 058	Metal/Rock	600
CTO-002 Grid 55	HPS-COM- 060	~3/4" diam. Radioluminescent Disk	600



## **Experimental Ship Shielding Range Grid Layout**

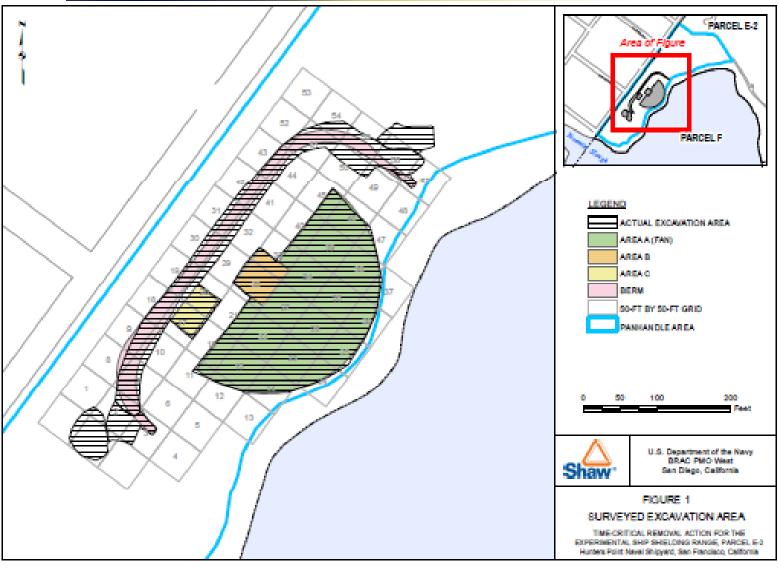






#### **Experimental Ship Shielding Range Excavated Area Map**













Ship Shielding Range, Pre-Excavation - June 6, 2012





Fan Area

**Berm** 



Keel Blocks in Fan Area - June 8, 2012









Relocating Keel Blocks and Debris Piles - June 14, 2012







Pre-Excavation Gamma Walkover Surveys - June 6, 2012









South North

Ship Shielding Range Berm, Pre-Excavation - June 8, 2012







Commencement of Berm Removal - June 26, 2012







Rad Scanning of Excavated Material in Bucket prior to transport to RSY- June 28, 2012







Post-Excavation of Berm, View Facing South – July 12, 2012







Post-Excavation of Berm, View Facing North – August 13, 2012







**Excavated Additional Section to the South of Shielding Range – August 7, 2012** 



## **Experimental Ship Shielding Range**What's Next



- Continue air monitoring during earthmoving activities
- Continue dust suppression, erosion control, and fence line inspections
- Backfill low areas
- Waste management
- Site restoration
- Demobilization



## **Experimental Ship Shielding Range Schedule**



Activity	Date
Pre-excavation Characterization Sampling	June 2012 – Completed
Shielding Range Excavation	June – July 2012 – Completed
Radiological Soil Processing on RSY Pads	June – August 2012 - Completed
Final Conditions Survey	August 2012 - Completed
Site Restoration	August – September 2012
Demobilize	September 2012
Submit Draft Removal Action Completion Report	November 2012